

[Claim]

What is claimed is,

1. A titanium dioxide particle having 70 to 95 % by weight crystalline anatase, a BET specific surface area being 65 to 120 m<sup>2</sup>/g, and oil absorption being 70 to 90 ml/100g measured by the method according to JIS K5101.

2. A photovoltaic device comprising a light-transmittable base material (11) and a porous film (21b) formed on the base material and absorbing a dye (21d),

wherein said porous film (21b) absorbing said dye (21d) contains the titanium dioxide particle (21c) having 70 to 95 % by weight crystalline anatase, a BET specific surface area being 65 to 120 m<sup>2</sup>/g, and oil absorption being 70 to 90 ml/100g measured by the method according to JIS K5101.

3. The photovoltaic device according to claim 2, wherein the base material (11) is a glass plate or a flexible plastic film.

4. A manufacturing method of the titanium dioxide particle by flame-hydrolyzing titanium tetrachloride in a hydrogen burning flame, wherein a theoretical burning temperature of said flame is set within the range from 400°C to 700°C.

5. A dye-sensitized solar cell using the photovoltaic device claimed in claim 2 or claim 3.